

NearDet Operations

Peter Shanahan

Fermilab

Oxford Collaboration Meeting

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From Last Meeting

- Resolved Issues

- ▶ Clock system errors $\sim 1/\text{week}$: Fixed with Firmware Upgrade

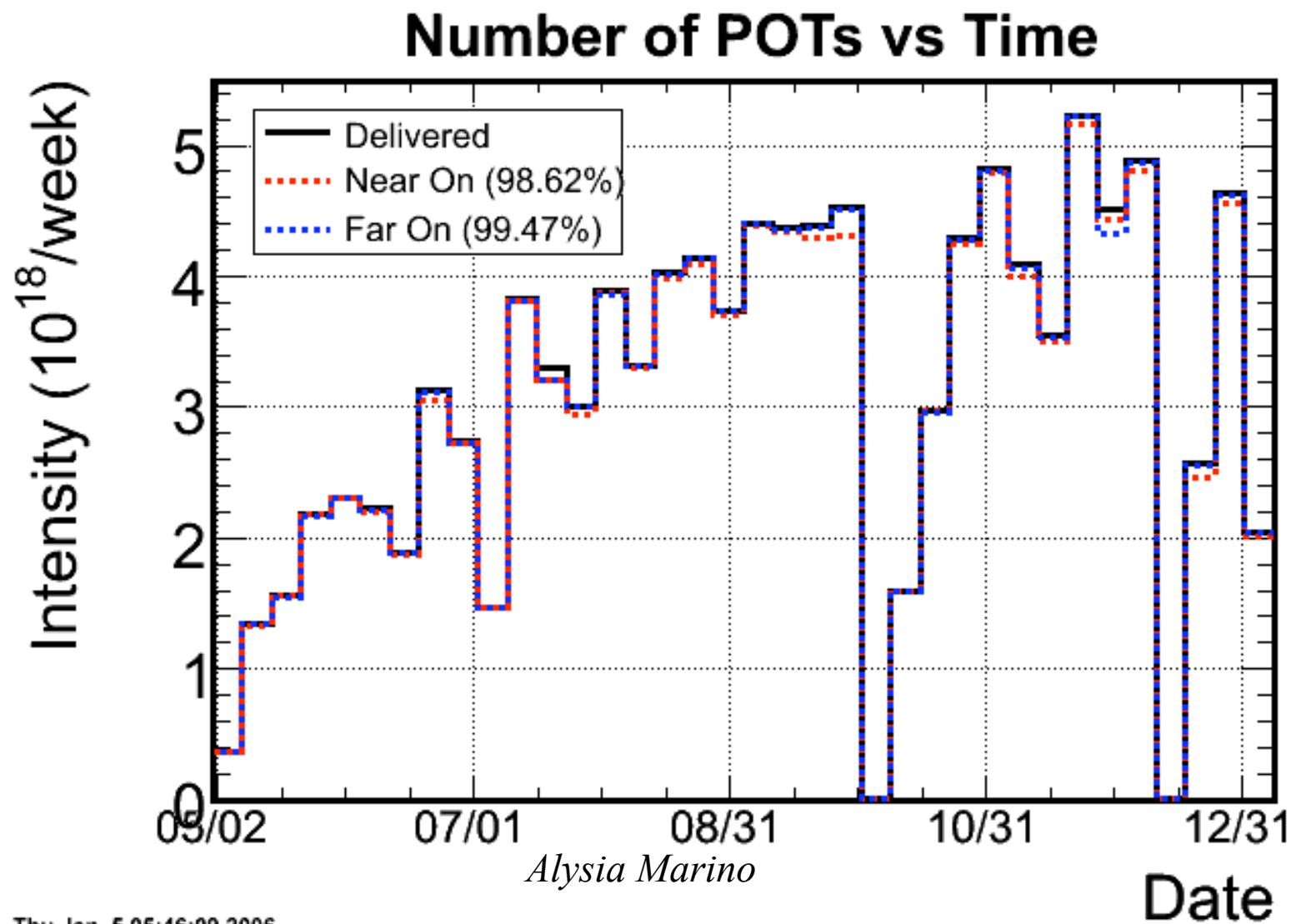
- Still unresolved

- ▶ Menu Failure: Continue at rate of $\sim 4/\text{week}$
 - October Meeting: Plan to replace blowing 12V fuses with resettable ones
 - Recent discovery that $\sim 1/4$ of blown fuses have other problems. This may indicate a risk, since resettable fuses are slower.
 - Test - 10 crates x 10 weeks ~ 10 failures
- ▶ Datatype 7 error: Known fix to be implemented in shutdown. PROM replacement - PROMs in hand.

MiniBooNe ν 's

- MiniBooNe Neutrinos have been seen in NearDet
 - ▶ Tingjung Yang, Hyejoo Kang, Simona Murgia, Stan, Wes, Dixon, P.S.
- All with 10/12 trigger so far
 - ▶ Trigger Set to 4/5 in mid-December
- Can we have more liberal trigger?
 - ▶ Options discussed by DAQ, Electronics, and Timing groups
 - ▶ MiniBooNe SGATEs - complicated, involving many systems
 - ▶ “TrigPMT”-like option (Nathaniel) - use fake hit to tag MB events in Trigger Processor
 - Special hardware has been produced by Gary Drake. Need to time in. Triggering modification during (or just before?) shutdown. Necessary?

Uptime

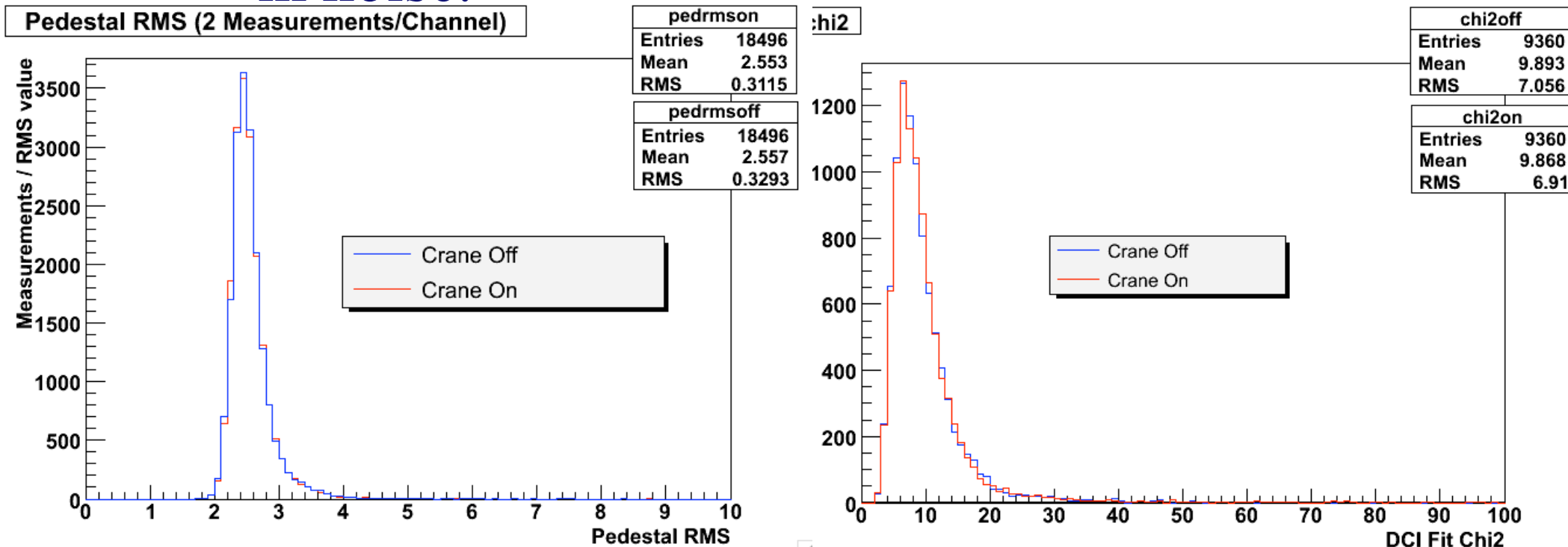


Crane Noise Studies

- Studies of effect of overhead crane operation on NearDet operations
 - ▶ Context of MINERvA installation
- Several runs taken in December with crane running and off
 - ▶ Charge Injection Calibration Validation
 - ▶ Singles
 - ▶ Physics (Cosmics)

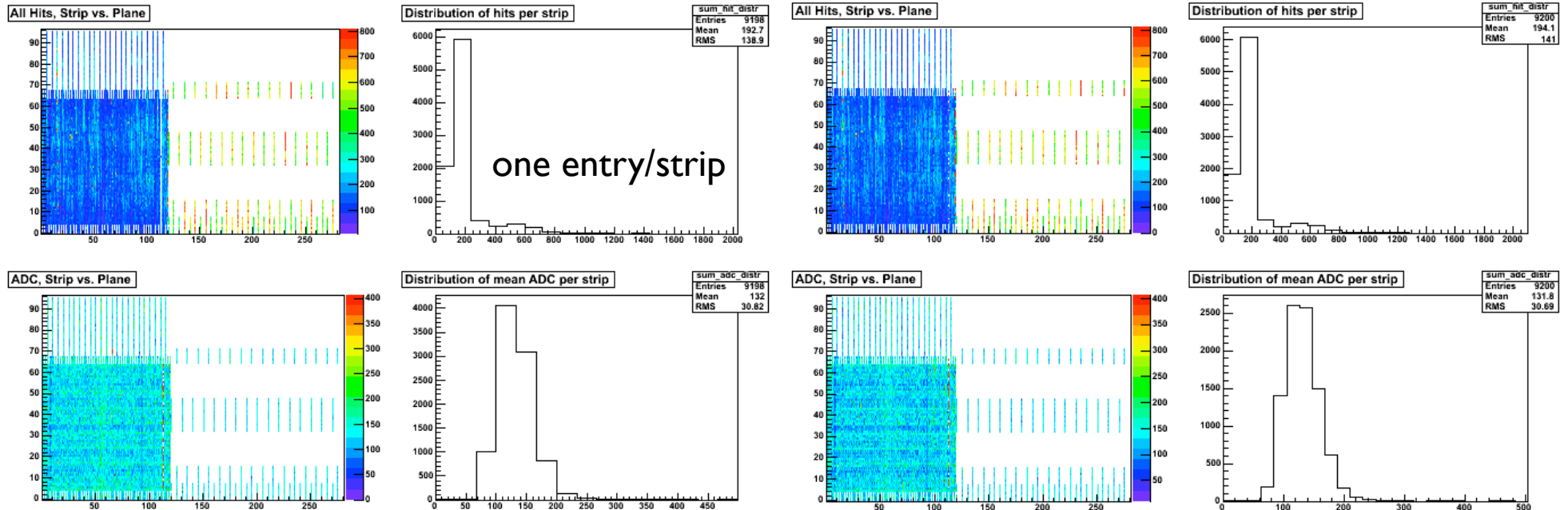
Charge Injection Validation

- Pedestal RMS and Chi2 of linear fit over dynamic range show no detectable increase in noise.



Singles Run

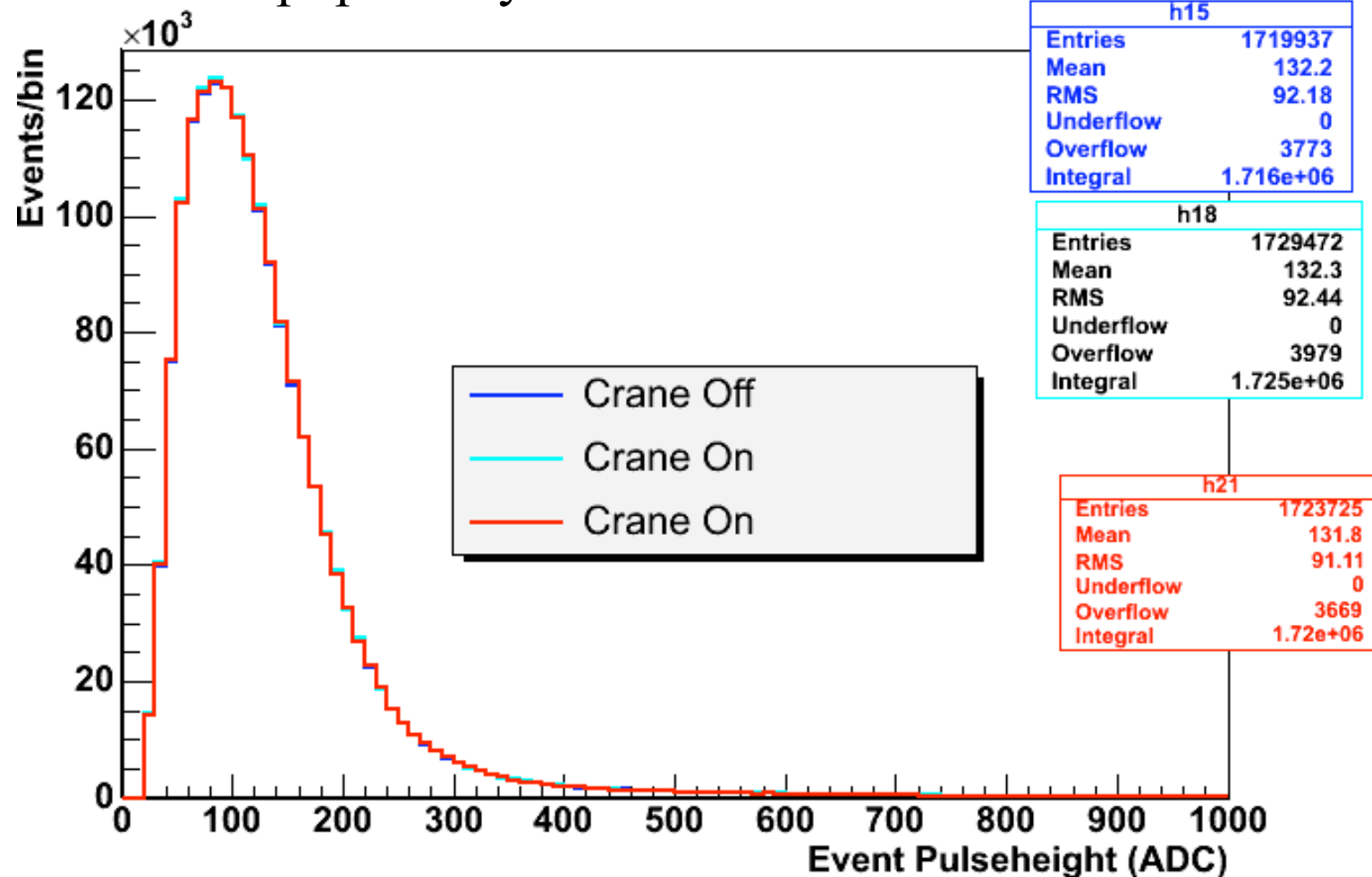
- M64 PMT threshold of $\sim 1/3$ PE
- All hits in triggered PMT above $\sim 1/5$ PE are read out
- No significant change in hit multiplicities or mean ADC/strip



Singles, Cont.

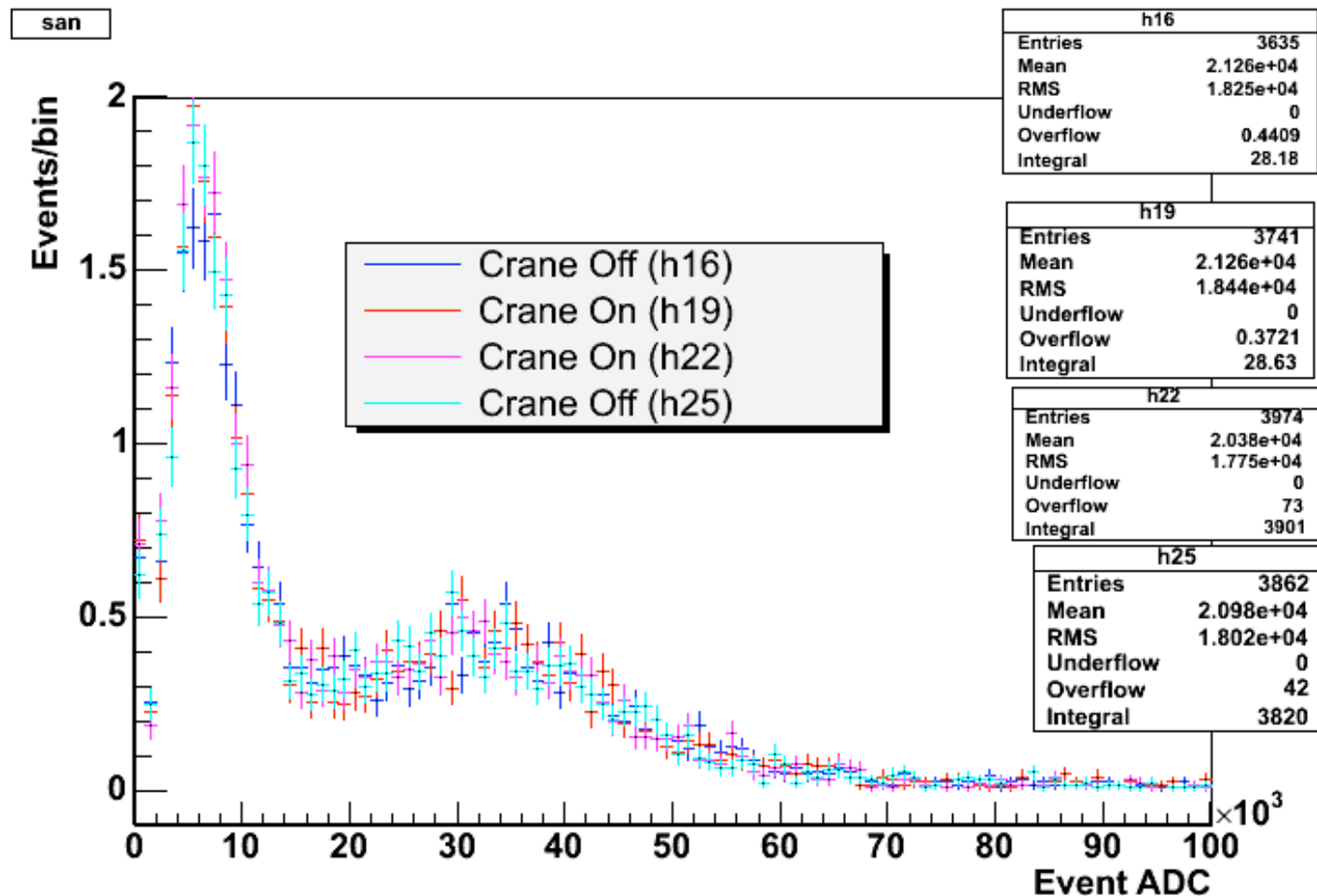
No significant reproducible crane on/off effect in
Singles ADC Distribution

san - except possibly a $\sim 0.6\%$ effect in total rate



Cosmics

No significant reproducible crane on/off effect in
Cosmics Snarls ADC Distributions



Summary

- NearDet continues to operate with very high uptime
- No hint of significant impact from overhead crane operation in Cosmics, Singles, or Charge Injection
- Need to follow up with SGATEs.